

STORM WATER POLLUTION PREVENTION PLAN

FOR

POSSUM POINT POWER STATION

19000 Possum Point Road
Dumfries, VA 22026

Prepared by:
Dominion Generation
Environmental Services & Projects

May 2016

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PLAN REVIEW AND CERTIFICATION

VA0002071 Part I.E.2.b.7.d. *Signature and Plan Review* (SWPPP Cross Reference #20)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:		Date
Printed Name:	Jeffrey C. Heffelman	
Title:	Director – Power Generation Station	

1.0 FACILITY INFORMATION

1.1 Facility Description – General

VA0002071 Part I.E.2.b.2. *Site Description* (SWPPP Cross Reference #7)

Possum Point Power Station is a gas and oil fired steam electric generating station. The principle wastewater discharges enter Quantico Creek. An oil dock and two cooling water intake structures originate from the Virginia shoreline of the Potomac River and extend into the Maryland waters of the Potomac River. The station is approximately thirty-five miles south of Washington D.C. and twenty-two miles from Fredericksburg, Virginia. The facility's latitude is 38° 32' 12.2" and longitude is 77° 16' 37.8". A Topographic Map of the Facility, which includes 640 acres total, is included in Appendix A.

Driving Direction: To reach Possum Point Power Station from Interstate 95, take the Dumfries – Manassas exit at Route 234 south. Take a right at the first traffic light on Route 1 south. Turn left off Route 1 (0.5 miles) onto Possum Point Road. The Power Station is located 4 miles off Route 1 at the end of Possum Point Road.

1.2 Facility Owner and Operator

Facility Operator:	Dominion Generation	Owner Name:	Virginia Electric and Power Co.
Address:	19000 Possum Point Road, Dumfries, VA 22026	Address:	5000 Dominion Blvd. Glen Allen, VA 23060
Telephone:	(703) 441-3813	Telephone:	804-273-3800

2.0 Contacts & Team Members

2.1 Pollution Prevention Team

VA0002071 Part I.E.2.b.1. *Pollution Prevention Team* (SWPPP Cross Reference #6)

Name	Title	Contact Number
Jeffrey C. Heffelman	Director – Power Generation Station (1)	(703) 441-3880
Jeffrey R. Marcell	Environmental Supervisor (2)	(703) 441-3813
Barbara Monteiro	Station Chemist III (3)	(703) 441-3808
Dana West	Station Chemist II (3)	(703) 441-3874
(24 Hour Coverage)	Shift Supervisor (5)	(703) 441-3832
Ian Whitlock	Environmental Specialist III (4)	(804) 273-2991

(1) RESPONSIBLE PERSON FOR OVERALL COORDINATION AND DEVELOPMENT.

(2) RESPONSIBLE PERSON FOR IMPLEMENTATION, TRAINING, AND REVISIONS TO PLAN.

(3) RESPONSIBLE PERSON FOR INSPECTION AND PLAN DEVELOPMENT.

(4) RESPONSIBLE PERSON FOR PERMIT INTERPRETATION FOR COORDINATION OF CORPORATE ENVIRONMENTAL AND STATION REQUIREMENTS.

(5) DAILY PLANT OPERATIONS.

2.2 SPILL PREVENTION AND RESPONSE

VA0002071 Part I.E.1.c. Release of Hazardous Substances or Oil in Excess of Reportable Quantities (SWPPP Cross Reference # 4)
VA0002071 Part I.E.2.b.4. Spill and Leaks (SWPPP Cross Reference # 9)
VA0002071 Part I.E.2.b.6.b)(iv) Spill Prevention and Response Procedures (SWPPP Cross Reference # 12)

The Station's Director, O&M Manager(s), and Environmental Supervisor are on call 24 hours a day 7 days a week. The Station's Operator(s) are to contact any of the above individuals in the event of a spill and/or leak.

Facility spill response procedures are referenced in the SPCC/ODCP/FRP plans and include the emergency contact numbers. In addition to the above reference plans, Possum Point's Emergency & Evacuation Procedures are located in the Safety Coordinator's Office and available electronically in the Operation's Folder. Spill history is provided in Section 7.1 of this plan.

Notification Procedure In the event of a facility emergency, the following list of emergency contacts may be necessary. In addition to the information below, Possum Point Power Station has a Facility Response Plan (FRP) which details spill procedures and notification requirements.

The initial contact should be made to the Control Room by telephone at (703) 441-3832.

Station personnel responsible for Station Operations will then evaluate the situation and determine the remainder of contacts that need to be made.

Person or Agency	Telephone Number
Station Director	(804) 317-5679 (cell)
Station Operation Manager	(757) 503-0040 (cell)
Environmental Supervisor	(703) 609-9015 (cell)
VA Department of Environmental Quality (DEQ)	(703) 583-3800
National Response Center	(800) 442-8802
VA Department of Emergency Services	(800) 468-8892 24-hour
Prince William County LEPC	(703) 792-7405 (703) 792-7020

Reports of Noncompliance

Any issues determined as noncompliant with the current VPDES permit shall be reported in accordance with the VPDES VA0002071 permit Part II, Sections F, G, H and I. Verbal notification shall be made to the VA Department of Environmental Quality (DEQ) Northern Regional Office within 24 hours of the discovery of the noncompliance issue. During normal working hours (8am-5pm, Monday-Friday) call the VA DEQ Northern Regional office at (703) 583-3800 and outside of normal working hours, call the VA Emergency Services at 1-800-468-8892. The following items are defined as noncompliance and have specific VPDES requirements for information needed in making a report:

- Unauthorized Discharges (VPDES permit Part II, Section F. & G.);
- Unusual or Extraordinary Discharges (VPDES permit Part II, Section H.);
- Bypass Discharges (VPDES permit, Part II, Section U.); and
- Any Spill and/or Leaks to State Waters.

Note: most reports of noncompliance will also require a written letter be submitted within 5 days of the notification.

2.3 POTW City Notification Requirement

N/A

Possum Point Power Station discharges their sanitary waste to Prince William County Service Authority, specifically H.L. Mooney Waste Water Treatment Plant. (Note back ground history email in Appendix J).

3.0 SAMPLING / MONITORING AND INSPECTION REQUIREMENTS

3.1 Summary of Outfalls

VA0002071 Part I.E.2.b.2. *Site Description* (SWPPP Cross Reference #7)

Possum Point Power Station's foot print includes an approximate total of 640 acres. Of the 640 acres, the drainage areas subject to the VPDES Storm Water program are described below.

- Discharge Point S5 : Discharges to Potomac River. Receives runoff from approximately 3.9 acres between Unit #5's Cooling Towers. The area is approximately 50% impervious buildings and 50% pervious grass with packed gravel. Outfall discharges to the mouth of Quantico Creek near the southeast corner of Unit #5 Cooling Tower A.
- Discharge Point S61: Discharges to Quantico Creek. Receives runoff from approximately 2.8 acres from the main entrance way to the plant, the gravel area west of the "Old" Combustion Turbine buildings, a portion of the roadway leading from the "Old" Combustion Turbines to the northwest end of the 115 kV Switchyard, grassy area and railway located west of the 115 kV Switchyard, and the west end of the maintenance shop including the west ½ of the Maintenance Shop roof. The area is estimated to be 60% impervious (buildings, roads), and 40% pervious (gravel, grass, woods, riparian buffer) areas.
- Discharge Point S42 : Discharges to Potomac River. Receives runoff from approximately 6.6 acres, which collects storm water through multiple drop inlets located around the perimeter of Unit #5 boiler and dust collector. The area is estimated to be 20% impervious (buildings, road) and 80% pervious (gravel, grass). One of the drop inlets receives drainage conveyed via ditch from the "Old" Combustion Turbines' oily-water separator, used as tertiary containment.
- Discharge Point S31: Discharges to Potomac River. Cooling Tower Mist (Allowable Non-Storm Water) Area north end of Unit #5 Cooling Tower B, includes 2 drop inlets that drain the 0.15 acres. Area consist of 10% Pervious (gravel & grass) and 90% impervious (road).
- Discharge Point S35: Discharges to Potomac River. The drainage area includes approximately 0.15 acres that is 90% impervious (road).
- Discharge Point S36: Area is located that around Units 1&2 stacks and the road under Units 3&4 Precipitators. This drainage area includes two drop inlet, one located under the Units 3&4 Precipitator and the other on the roof of Units 3&4 Screen Wells. The area consists of approximately 0.11 acres that are 30% pervious (gravel) and 70% impervious (road, roof).

- Discharge Point S37: Receives runoff from the area around Administration Building which is mainly vehicle parking, roof drainage from the Admin. Bldg and eastern ½ of the Maintenance Shop. The area consist of approximate 2.0 acres that are 40% pervious (grass and gravel) and 60% impervious (parking lot, roads, and roof tops).
- Discharge Point S49: Discharges to Potomac River and collects drainage from area east Unit #5 Boiler and north of Oil Dock Foam House. This area includes one drop inlet and consist of approximately 0.15 acres that are 50% pervious (gravel) and 50% impervious (roof).
- Discharge Point S77: Discharges to Potomac River and collects drainage conveyed through a concrete pipe from the area surrounding the eastern edge of the No. 6 fuel oil pipe bench leading north to the Unit #5 Transfer Pump House. This area is approximately 0.14 acres that are 90% pervious (river bank, gravel) and 10% impervious.
- Discharge Point S78, S79, S80, & S94 (MD): Discharges to Potomac River. All four outfalls are concrete flumes that drain the exterior berm of the Heavy Oil Tanks' containment. These areas' acreage are (0.61, 0.56, 0.36, and 0.23) respectively. The areas are 100% pervious (vegetative slope) with no industrial activity.
- Discharge Point S86: Discharges to Quantico Creek. Area collects drainage in ditches on both sides of the Rail Road, the ditches along Rail Road industrial storm water the from west of the 230 kV Switchyard, all of the M&R Station, west of the light oil containment tanks, the parking lot "Old" Combustion Turbines, and the Main Entrance. This area is approximately 34.6 acres and estimated 95% pervious (gravel, grass, vegetated slopes) and 5 % impervious (road, parking lot).
- Discharge Point S95: Discharges to Potomac River. Area consists of multiple ditches and graded surfaces that channel to a concrete plume that discharges to the Potomac River. This area is approximately 2.6 acres which is estimated 90% pervious (gravel, grass, vegetated slopes) and 10% impervious (road, parking lot).
- Discharge Point S107: Discharges to Quantico Creek. Collects storm water from the berm of Pond D via two drop inlets. This outfall is designed to collect groundwater infiltration from the Pond D's berm for stabilization. This outfall was sampled to characterize the groundwater discharge. The area is approximately 14.4 acres and estimated to be 100% pervious (grass, vegetative slopes).
- Discharge Point S108: Discharges to a Beaver Pond which flows into Quantico Creek. Collects storm water from the berm of Pond D via two drop inlets. This outfall is designed to collect stormwater runoff from the Pond D's future capped area and all of the stormwater runoff from Pond E. The area is approximately 234 acres and estimated to be 100% pervious (grass, vegetative slopes).

3.2 Non-Storm Water Discharges

3.2.1 Certification of Non-Storm Water Discharges

The non-storm water discharge certification is included in the Appendix H.

3.2.2 Allowable Non-Storm Water Discharges

VA0002071 Part I.E.1.b. Allowable Non-Storm Water Discharges (SWPPP Cross Reference #2)
VA0002071 Part I.E.1.b. Allowable Non-Storm Water Discharges – Cooling Tower Mist Study (SWPPP Cross Reference #3)

This facility is permitted by the above referenced permit in Part I.G.2.b., page 28 of 29, for the following “Allowable Non-Storm Water Discharges”. Please refer to Appendix C for the allowable sources drainage locations and Section 5.0 of this plan for various storm water controls. Other than the Demineralized Water trailer changeouts, none of the other Allowable Non-Storm Water discharges occur at a frequency that warrants additional Best Management Practices (BMPs).

- Discharge from fire fighting activities;
- Fire Hydrant Flushing;
- Potable Water Sources including waterline flushings;
- Uncontaminated air conditioning or compressor condensate;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizers have been applied in accordance with manufacturer’s instructions;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- Routine external building wash down which does not use detergents;
- Uncontaminated groundwater or spring water;
- Foundation or footing drains where flows are not contaminated with process materials;
- Demineralized water from storage tanks;
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but, NOT intentional discharges from the cooling tower (e.g. “piped” cooling tower blowdown or drains). Note: The Unit 5 cooling towers are not chemically treated and therefore the incidental discharges do not require analysis for the cooling tower chemicals. The drainage area around Unit 6 cooling tower is collected and comingled with the station’s industrial waste water which is monitored in accordance with VPDES permitted Outfall 004 limitations; and
- Uncontaminated river water.

Possum Point Power Station’s discharges are permitted by VA DEQ under an Individual Industrial Major VPDES permit. The VPDES permit No. VA0002071 combines both industrial wastewater and storm water discharges. The following are the VPDES permitted wastewater outfalls:

Discharge Point 001 & 002: Combined outfalls that discharge to Quantico Creek. The discharges are Condenser Cooling Water & Cooling Tower Blowdown and receive flow from internal Discharge Outfalls 201 & 202:

Discharge Point 201: Cooling Tower Blowdown for Unit 5.

Discharge Point 202: Cooling Tower Blowdown for Unit 6.

Discharge Point 003: Condenser Cooling Water for Unit 4 that discharges to Quantico Creek.

Discharge Point 004: Low Volume Waste Settling Pond that discharges to the mouth of Quantico Creek.

Discharge Point 005: Ash Pond E to Quantico Creek. Receives flows from internal Outfalls 501 & 502:

Discharge Point 501: Oil Waste Treatment Basin.

Discharge Point 502: Metals Cleaning Waste Treatment Facility.

Discharge Point 007: Units 1&2 Intake Screen Backwash to Potomac River.

Discharge Point 008: Intake Screenwell Freeze Protection to Potomac River.

Discharge Point 009: Units 3&4 Intake Screen Backwash to Potomac River.

Discharge Point 010: Groundwater, stormwater, and toe drain water collected from Pond D.

Discharge Point 503: Comingled Process Water, Ash Dewatering Water, Contact Water (Interim) / Ash Pond D Underdrain / Outfall 010 / Internal Outfall 501 (Final) – When Routed to Outfall 001/002 or Outfall 004

3.3 Monitoring Requirements

VA0002071 Part I.E.1.a. Quarterly Visual Examination of Storm Water (SWPPP Cross Reference #1)

The Quarterly Visual Monitoring is required to be conducted periods of (January – March) (April - June) (July – September) (October – December). See the above permit condition for the details on qualifying rain events and adverse weather conditions. An example of Visual Inspection forms are provided in Appendix E.

QUARTERLY VISUAL MONITORING PARAMETERS OF NPDES PERMIT

Discharge Characteristics	Monitoring Frequency	NPDES Permit # Monitoring Location
Color	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Odor	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Clarity	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Floating Solids	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Settle Solids	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Suspended	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Foam	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Oil Sheen	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Other Obvious Indicators	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*

Note: *In addition to the requirements specified in the table above, S107 and S108 will be inspected every five business days and no later than 48 hours following a measurable storm event for the presence of floating solids and visible foam in other than trace amounts (See Section 3.4 below).

Upon successful demonstration to and written approval from DEQ confirming that all groundwater contributions to Outfall 010 discharge have been removed, Outfall S107 will be designated as a stormwater-only discharge. At that time S107 will be monitored under this SWPPP.

3.4 SWPPP Inspection Requirements

VA0002071 Part I.E.2.b.6.b)(v) Routine Facility Inspections (SWPPP Cross Reference # 13)

The above referenced permit condition requires the identified storm water exposed items identified in this plan to be inspected at least quarterly. The suggested schedule; **(January – March)**, **(April – June)**, **(July – September)**, and **(October – December)**. The facility petroleum items will be inspected in accordance with the SPCC requirements, please refer to the SPCC plan. (Please see section 7.3 of this plan for Storm Water inspection documentation and Appendix E of this plan for blank Storm Water inspection forms.)

Outfalls S107 and S108 shall be inspected once every five business days and no later than 48 hours following a measureable storm event. Any corrective actions identified during the inspections shall be implemented as soon as possible, but no later than seven days after discovery. The inspection reports and any corrective actions must be documented in the Ash Handling Area Outfall Inspection Form (Appendix E) of the SWPPP.

3.5 Comprehensive Site Compliance Evaluation

VA0002071 Part I.E.2.b.7.d. Comprehensive Site Compliance Evaluation (SWPPP Cross Reference #19)

The Storm Water Pollution Prevention Plan shall be reviewed and updated on an **Annual** basis and can coincide with one of the quarterly inspections. For records of annual reviews, see section 7.4 and/or Appendix D.

Note: The permit requires the SWPPP to be amended within 30 days of the Annual evaluation and 60 days to implement the Action Items unless DEQ approves a written time extension request.

4.0 POTENTIAL POLLUTANT SOURCES

VA0002071 Part I.E.2.b.3. Summary of Potential Pollutant Sources. (SWPPP Cross Reference #8)

A SWPPP evaluation and associated SPCC Plan identify the following equipment and areas that could potentially impact storm water as a result of spills during oil or chemical transfer operations. The likelihood is low and is primarily associated with storm drain vicinity to the equipment/operation. Please refer to Appendix B & C maps for locations and drainage patterns. Historical copies of the facility's SWPPP are archived electronically which include the exposures during that period, copies are available upon request.

4.1 SUMMARY OF POTENTIAL POLLUTANT SOURCES

Facility Area	Activity	Pollutant(s) or Pollutant Parameter(s)
Barge Unloading Area	Barge Off Loading	POLLUTANT: Petroleum DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Laydown Area	Bulk Equipment Unloading and Storage (Temporary / Outages)	POLLUTANT: Metals DIRECT EXPOSURE: Yes POTENTIAL TO DISCHARGE: Yes
Metal Dumpster	Storage	POLLUTANT: Metal DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Sand and Gravel Stock Pile	Unloading and Storage	POLLUTANT: Sand and Gravel DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
General Refuse Areas (3 Locations)	Storage	POLLUTANT: General Refuse DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Oil Dock Fire Foam House	Unloading and Storage	POLLUTANT: Fire Foam DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Possum Point C.T. False Start Drain Tank (Old C.T.s)	Storage and Unloading	POLLUTANT: Petroleum DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Ash Ponds	Storage, Loading, and Transportation	POLLUTANT: Metals DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes

4.2 Site Bulk Chemicals/ Materials

VA0002071 Part I.E.2.b.6. Storm Water Controls (SWPPP Cross Reference #11)

Chemical / Material Storage		
Material Exposure (Map Key ID "S#")	Storage Capacity (Gallons)	BMPs
General Refuse Dumpster Map Key (S1, S2, S3, S15, S17 & S18)	NA	Equipped with lids and/or tarps, Drains to Outfall S42, Outfall S61, Outfall S31.
Laydown Area Map Key (S4)	NA	Graded with rock - Drains to Outfall S5 and S86.
Metal Dumpster Map Key (S5)	NA	Equipped with lids and or tarps - Drains to Outfall S95.
Sand and Gravel Stock Pile Map Key (S6)	Varies	Equipped with concrete pad and covered with tarps – Drains to Outfall S5.
Possum Point C.T. False Start Drain Tank (Old C.T.s) Map Key (S7)	500	Double walled tank, slope concrete pad curbed on three sides. Drain is protected with Active-X membrane. Drains to Outfall S42.

Chemical Containing Equipment		
Equipment / Material (Map Key ID "S#")	Storage Capacity (Gallons)	BMPs
Unit 5A Cooling Towers Map Key (S8)	Flow Through 330,000 gpm	- Drains to Outfalls S5. Concrete Basin.
Unit 5B Cooling Towers Map Key (S9)	Flow Through 330,000 gpm	- Drains to Outfalls S5 and Outfall S31. Concrete Basin.

Chemical & Material Unloading & Transfer Facilities		
Material Exposure (Map Key ID "S#")	Spill Potential	BMPs
Fire Fighting Foam Map Key (S10)	Product Transfer from tote/drum	Stored inside of building - Drains to Outfall S46.
Oil Water Separator Sump Clean-out Map Key (S11)	Max Truck Capacity (3,000 gallons)	Catch Pans and pads under the connection. The tanker utilizes vacuum pressure. – Outfall S86
No. 2 Dock Oil Water Sump Clean-out Map Key (S12)	Max Truck Capacity (3,000 gallons)	Catch Pans and pads under the connection. The tanker utilizes vacuum pressure. – A release would be to the dock area over the Potomac River, which is protected by shoreline boom.
Possum Point C.T. False Start Drain Tank (Old C.T.s) Map Key (S13)	Max Truck Capacity (3,000 gallons)	Catch Pans and pads under the connection. The tanker utilizes vacuum pressure. – A release would be to the dock area over the Potomac River. Drain is equipped with Active-X membrane material. Outfall S42.
C.T. Portable Restroom Map Key (S14)	1000 gallon Sewage 400 Water	The Portable Restrooms are strategically placed in areas away for storm drain inlets and ditches. The area around the Portable Restroom is inspected in accordance with the Combustion Turbine EIG. Outfall S61
Ash Pond Closure	Variable	No ash will be stored outside Ash Ponds A, B, C, D, and E. Ash is directly loaded from inside Ash Ponds A, B, C, and E into oversized dump trucks and transported to Ash Pond D for disposal.. The oversized dump trucks will be staged onto gravel pads within each pond during loading activities to minimize tracking of ash on roadways. The ash will be dewatered prior to loading the oversized dump trucks so that free liquid is minimal during hauling. Trucks are inspected for overall operational efficiency and container structural integrity before departure from the ponds. Truck tires are cleaned as needed by washing tires within Ponds A, B, C, D, and E prior to mobilizing onto haul roads. Inspect on-site haul roads for ash deposits during every work shift and before any rain event. Clean/remove ash from roadways as needed. The trucks will transport the ash directly to Pond D for disposal. Stormwater runoff BMPs include silt fence, super silt fence, rock check dams, hay bales, and temporary sediment basins.

4.3 Site Bulk Oil

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)

The oil related tables, please refer to the SPCC/ODCP/FRP Plans.

4.4 EPCRA 313 § Reporting Requirements

VA0002071 Part I.E.1.c. *Release of Hazardous Substances or Oil in Excess of Reportable Quantities* (SWPPP Cross Reference # 4)

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)

This Facility generates electricity by burning natural gas and oil therefore the relevant EPCRA 313 (TRI) pollutants are typically associated with natural gas and oil. A TRI report is submitted on an annual basis and identifies all TRI chemicals that may be released to Air, Land and Water. Copies of the Annual TRI reports are filed in the Station ECC's office and available upon request.

4.5 Sediment & Erosion

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)

VA0002071 Part I.E.2.b.6.b)(vi) *Sediment and Erosion Control* (SWPPP Cross Reference # 15)

4.5.1 Sediment and Erosion Control

The Station utilizes curbs, concrete ditches, rocks and grates/inlets to control storm water runoff. Some of the grates/inlets are surrounded with hay bales and silt fences. Approximately 22% of the property is impervious surfaces such as roof tops and paved parking lots and roads. The other 78% are previous with ponds, graveled and some grassy areas. No evidence of significant erosion is currently present.

4.5.2 Construction Erosion & Sediment Control

Appendix G is reserved for insertion of Erosion and Sediment Control Plans and Construction Storm Water Pollution Prevention Plans in the event of construction activity at the station. However, due to their complexity, filing these plans in Appendix G may not be practical. Therefore, these plans are often times filed outside this SWPPP and maintained onsite with other related storm water files. A Construction Storm Water Permit is required for land disturbance of one or more acres. However, VSMP coverage is still required for land disturbance greater than 2,500 square feet for facilities that lie within the Chesapeake Bay Preservation Area. The Construction Storm Water Permits are developed with a specific focus on site topography, drainage patterns, soils, ground cover, and adjacent runoff areas.

Currently a Construction SWPPP is in effect for the haul road construction used for the Pond Closure Project, as required by General VPDES Permit No. VAR10H301. This SWPPP and Permit are located in the on-site Construction Trailer.

4.6 Salt Storage

VA0002071 Part I.E.1.d. *Additional Requirements for Salt Storage* (SWPPP Cross Reference # 5)

This station does not maintain a storage pile of salt.

5.0 STORM WATER CONTROLS

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)
 VA0002071 Part I.E.2.b.6.b)(vi) *Sediment and Erosion Control* (SWPPP Cross Reference # 15)
 VA0002071 Part I.E.2.b.6.b)(vii) *Management of Runoff* (SWPPP Cross Reference #16)

Storm water management controls appropriate for the Station can be summarized as follows:

UNIT OR AREA NAME	APPROPRIATE STORM WATER MANAGEMENT CONTROLS
Runoff Control	Drop in-let, silt-traps, rocks, gravel, curbing, hay bales, rock check dams, temporary sediment basins, silt fence, and super silt fence.
Material Transfer Areas	Secondary containment as applicable, drainage system, written procedures, personnel attendance during transfers, spill kits, and inspections.
Storage Tanks	Secondary containment, drainage system, shutoff valves, loading/unloading procedures, inspection, and spill kits.
Oil-Filled Mechanical/Electrical Equipment	Secondary containment, written procedures, drainage system, spill kits, inspections, and deployment of oil boom.
Demineralized Water Production (Trailers)	All portable water trailers are transported to a drain which leads to the Low Volume Settling Pond system. (Outfall 004)

5.1 Structural BMPs

Refer to Section 4.2, 4.3 and 4.5 for structural BMPs in place at this Station.

5.2 Non-Structural BMPs

The Station has Operating Procedures that are related to storm water contact management. They reduce the potential for storm water contact due to equipment failure or operational losses. The associated OPs are listed in section 5.2.1:

5.2.1 Employee Training

VA0002071 Part I.E.2.b.6.b)(v) *Employee Training* (SWPPP Cross Reference #14)

The positions noted (2) in the Pollution Prevention Team in Section 2.1 of this plan are responsible for providing the storm water training. The station documents the training via the company's Learning Management System (LMS). The Station has the following training that encompasses storm water management:

- New Employee Orientation
- Safety Inspections
- Hazard Communication Program
- Annual Storm Water Pollution Prevention

The Station has developed Operational Procedures associated with storm water and used as training. Copies of the Operational Procedures are maintained in the Station's internal computer network under the Operation's Folder for product deliveries and available upon request.

Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS) are also utilized as part of training to ensure that employees understand the nature of materials that could cause equipment leaks. Refer to Station's files for copies of the MSDS/SDS.

5.2.2 Good Housekeeping

VA0002071 Part I.E.2.b.7.a. *Good Housekeeping* (SWPPP Cross Reference # 17)

Section 6.0 of this plan includes the details for each Good Housekeeping requirement. The station has routine weekly general refuse pick-ups.

5.2.3 Routine Facility Inspections

VA0002071 Part I.E.2.b.6.b)(v) *Routine Facility Inspections* (SWPPP Cross Reference # 13)

Routine facility inspections are comprehensive in scope, refer to Appendix E of this plan for the Storm Water Inspection and SPCC/ODCP/FRP plan for the Oil Inspection forms. The inspections include:

- Storm Water: Monthly Inspection and Annual Evaluation (Note: This station does not currently have ASTs located in the drainage areas of the permitted storm water outfalls. Therefore, the weekly inspections of the items other than those conducted in the oil program do not apply.)
- SPCC Plan form "Daily, Weekly, and Monthly Oil Inspection."

5.2.4 Spill Prevention and Response Procedures

VA0002071 Part I.E.2.b.6.b)(iv) *Spill Prevention and Response Procedures* (SWPPP Cross Reference # 12)

Please refer to Section 2.2 of this plan and the SPCC/ODCP/FRP plans for general spill response procedures.

5.3 Preventive Maintenance

VA0002071 Part I.E.2.b.7.c. *Preventive Maintenance* (SWPPP Cross Reference #18)

Based upon facility evaluation, Section 4.0 (Potential Pollutant Sources) identified those types and locations of equipment that can potentially impact storm water as a result of operational or equipment failure or human error. The associated BMPs with Section 4.0 of this plan will be inspected in accordance with Section 3.4 and Appendix E of this plan. The continuing structural or non-structural BMPs that are currently utilized, and will continue to be utilized, until planned BMP feasibility studies are completed for possible future construction and/or implementation. Preventive maintenance of the BMPs associated with ash pond closure activities will be addressed through the implementation of the Ash Pond Closure Stormwater Management Inspection Forms (Appendix E). These inspection forms will be completed daily during ash pond closure activities.

5.4 Eliminating and Minimizing Exposure

The majority of the industrial activity conducted at this facility is done in areas that drain to the station's industrial waste water treatment systems. The materials exposed to precipitation and pose a potential to be discharged via a storm water outfall are identified in Section 4.0 of this plan.

6.0 GOOD HOUSEKEEPING MEASURES

VA0002071 Part I.E.2.b.7.a. Good Housekeeping Measures (SWPPP Cross Reference # 17)

6.1 Fugitive Dust Emissions

Wet suppression is implemented on an as needed basis.

6.2 Delivery Vehicles

Bulk chemicals come in closed container trucks. Facility has safe fill and shutdown procedures that are to be used in transfer process and posted at each unloading area. Delivery of petroleum products are handled in accordance with the SPCC Plan.

6.3 Fuel Oil Unloading Areas

Measures to prevent or minimize contamination of storm water runoff from fuel oil unloading areas are described in the SPCC Plan.

6.4 Chemical Loading/Unloading Areas

Operations are notified upon arrival of bulk shipment. Station personnel trained in spill prevention response are available during unloading. Most of the chemicals used at the Station are stored indoors. Chemical unloading areas are equipped with containment and drains to handle any spill. Safe fill and shutdown procedures are used during unloading events.

6.5 Miscellaneous Loading/Unloading Areas

Various structural Best Management practices such as berming, curbing, containment, and written procedures are utilized for both chemical and petroleum unloading areas.

6.6 Small Liquid Storage Tanks

Bulk chemical spills from storage tanks are contained, cleaned up, and/or routed to the Station's Low Volume Settling Ponds or Oil Retention Pond. Transfer facilities are equipped with spill and overflow protection. (e.g. containment curbing, drip pans, drip diapers, and/or other containment devices). Trained personnel handle small clean-ups and contractors are hired to handle large clean-ups.

6.7 Large Bulk Fuel Storage Tanks

Refer to Section 4.4 and the facility's SPCC Plan maintained under separate cover.

6.8 Spill Reduction Measures

Refer to Section 5.0 and the facility's SPCC Plan maintained under separate cover.

6.9 Oil Bearing Equipment in Switchyards

Refer to Section 4.4 and the facility's SPCC Plan maintained under separate cover.

6.10 Residue Hauling Vehicles

The Station does not routinely haul coal or coal by-product. The Station ensures all residue hauling vehicles will be inspected for proper covering over the load, adequate gate sealing and overall integrity

of the body or container. Vehicles without load coverings or adequate gate sealing, or with leaking containers or beds will be repaired as soon as practicable.

6.11 Ash Loading Areas

This facility no longer burns coal. Therefore, ash is no longer disposed from the Station into the on-site Ash Ponds. The Oil Ash from Unit 5 is vacuumed into a sealed container and transported to an industrial landfill. Ash Ponds A, B, and C will be clean closed. Ash Pond D will be capped and closed in-place. The ash from Ash Pond E will be removed and the pond will be used as a storm water pond.

Ash material from Ash Ponds A, B, C, and E is currently scheduled to be disposed in Ash Pond D.

6.12 Areas Adjacent to Disposal Ponds or Landfills

When this facility operated via coal, the ash was sluiced to a settling pond, therefore ash hauling/tracking is not an issue for this facility. The integrity of Ash Pond's berms and banks are periodically inspected for erosion issues. For vehicle tracking management, please refer to section 6.10 above.

6.13 Landfills, Scrapyards, Surface Impoundments, Open Dumps, General Refuse Sites

The General Refuse dumpsters are equipped with lids to prevent contact of rainwater. Scrap metal is placed in dedicated metal debris dumpsters for disposal. During construction activities, large pieces of equipment are stored in a Laydown area. Oily rags and absorbents are placed in the dedicated Oily Debris dumpster equipped with lids.

6.14 Maintenance Activities

Vehicle and Equipment Storage Areas:

Vehicles awaiting maintenance are stored in Coal Yard Service Building.

Fueling Areas:

Measures to prevent or minimize contamination of storm water runoff from fueling areas are described in the SPCC Plan.

Vehicle and Equipment Cleaning Areas:

Vehicle washing is limited to drains that connect to Wastewater Outfall 004. (No Detergents are used)

Vehicle and Equipment Maintenance Areas:

On-road vehicle and heavy equipment maintenance is performed in the Coal Yard Service building or under cover on the East side of the Unit 5 Sandfilter Building.

6.15 Material Storage Areas

Materials are placed in covered storage areas or, if stored outdoors, in closed containers or under cover. Storage units for all materials are maintained in good condition.

7.0 DOCUMENTATION

The following subsections represent the various methods of documentation.

7.1 Spills and Leaks

VA0002071 Part I.E.2.b.4. *Spill and Leaks* (SWPPP Cross Reference # 9)
VA0002071 Part I.E.2.b.6.b)(iv) *Spill Prevention and Response Procedures* (SWPPP Cross Reference # 12)

The reportable spills list is provided in Appendix I of this plan and locations are referenced on the Appendix C drawing.

7.2 Storm Water Monitoring Requirements

VA0002071 Part I.E.1.a. *Quarterly Visual Monitoring* (SWPPP Cross Reference #1)
VA0002071 Part I.E.2.b.5. *Sampling Data* (SWPPP Cross Reference #10)

Monitoring records are maintained in Station's files and available upon request. An example monitoring form is provided in Appendix E. A summary of the monitoring data is conducted during the Annual Evaluation and is provided in Appendix D.

7.3 Site Inspections

VA0002071 Part I.E.2.b.6.b)(v) *Routine Facility Inspections* (SWPPP Cross Reference # 13)

Routine Facility Inspections are conducted on a quarterly basis. At least once each calendar year, the routine facility inspection must be conducted during a period when storm water discharge is occurring. Inspection forms are in Appendix E and records are maintained in Station's files and available upon request.

7.4 Annual Evaluation

VA0002071 Part I.E.2.b.7.d. Comprehensive Site Compliance Evaluation (SWPPP Cross Reference #19)

Refer to Appendix D for evaluation summary forms and reports.

ANNUAL COMPLIANCE EVALUATION CERTIFICATION

Date of Site Visit	Purpose
July 16 &17, 2008	Annual Evaluation
August 11 & 12, 2009	Annual Evaluation
August 17 & 18, 2010	Annual Evaluation
August 3, 2011	Annual Evaluation
August 13, 2012	Annual Evaluation
July 18, 2013	Annual Evaluation
August 7, 2014	Annual Evaluation
September 2, 2015	Annual Evaluation

7.5 Goals & Objectives

The storm water pollution prevention plan (SWPPP) has been developed as required by the Station's storm water discharge permit and to incorporate good engineering practices. This SWPPP describes this Station, its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate BMPs or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP. It is the objective of this program to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the storm water runoff being discharged.

7.6 Record of Review

VA0002071 Part I.E.2.b.7.f. Maintaining and Updating SWPPP (SWPPP Cross Reference #21)

Record of Reviews (SWPPP Permit Reference #13)				
Date of Inspection ¹	Date Minor SWPPP Revisions Completed ²	Date of Substantial BMP Modification ^{3,4}	Date of Comprehensive Site Evaluation Summary Report ⁵	Reason for Amendment
July 16 & 17, 2008			July 17, 2008	Annual Evaluation
August 11 & 12, 2009			August 12, 2009	Annual Evaluation
August 17 & 18, 2010			August 18, 2010	Annual Evaluation
August 3, 2011			November 14, 2011	Annual Evaluation
	July 31, 2012			Audit Findings
August 13, 2012			August 15, 2012	Annual Evaluation
July 18, 2013	July 18, 2013		September 24, 2014	Annual Evaluation
August 7, 2014	August 7, 2014		August 7, 2014	Annual Evaluation
September 2, 2015	September 16, 2015		September 23, 2015	Annual Evaluation
	March 17, 2016			Reissued VPDES Permit
	April 28, 2016			Pond D Status Changed to Active

¹ A Station inspection must be completed by qualified personnel familiar with Station operations in accordance with State and Federal SWPPP regulations.

² The SWPPP shall be modified as necessary to include minor changes in SWPPP text, Station controls or BMPs. Revision to the SWPPP must be completed within 30 days following the inspection, unless permission for a later date is granted in writing by the State NPDES authority.

³ If substantial SWPPP change is necessary including significant modification of existing BMPs or if the addition of new BMPs is necessary, implementation must be completed before the next anticipated storm event, if practicable, but not more than 60 days after completion of the comprehensive site evaluation, unless permission for a later date is granted in writing by the State NPDES authority. Refer to the Action Item Schedule on the next page.

⁴ The permittee shall amend the SWPPP whenever: (1) there is a change in design, construction, operation, or maintenance at the facility that has a significant effect on the discharge, or the potential for the discharge, of pollutants from the facility; (2) during inspections, monitoring, or investigations by facility personnel or by local, state, or federal officials, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants from sources identified.

⁵ A report summarizing the scope of the inspection name(s) of personnel making the inspection, date(s) of the inspection, and major observations relating to the implementation of the SWPPP, and actions taken in accordance with the NPDES permit shall be made and retained as part of the SWPPP for at least five years from the date of the inspections.

Appendix A

Topographic Site Map and Site Vicinity Map (SWPPP Permit Reference #7)

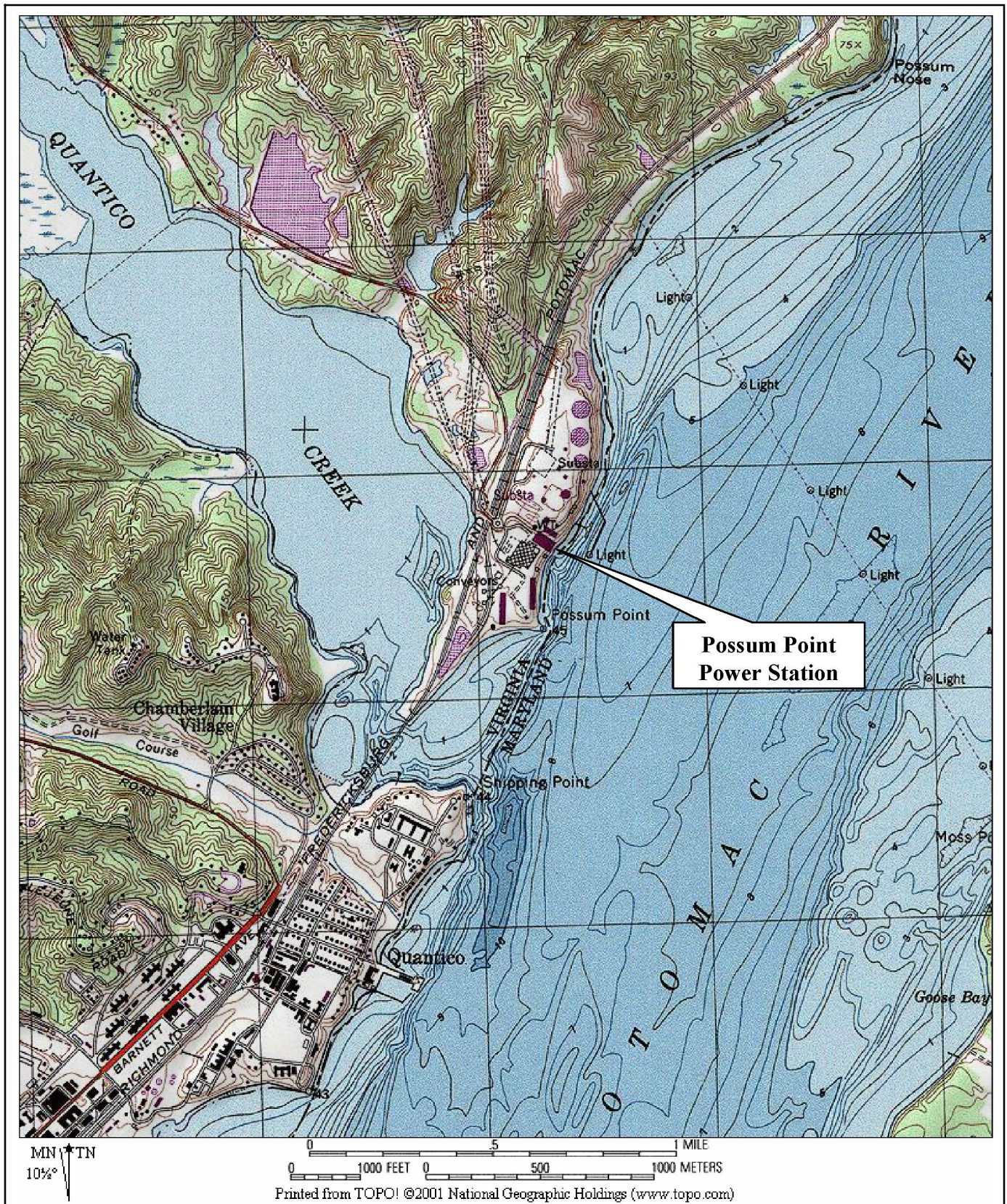


Figure 1
Site Location Map

Dominion Generation
Possum Point Power Station
Dumfries, Virginia

Appendix B

Site Plan
(SWPPP Permit Reference #7)

Map Key (S#)	Material Exposure
S1, S2, S3,S13 S15, S16, S17 &S18	General Refuse Dumpster
S4	Laydown Area
S5	Metal Dumpster
S6	Sand and Gravel Stock Pile
S7	Possum Point C.T. False Start Drain Tank
S8	Unit 5A Cooling Tower
S9	Unit 5B Cooling Tower
S10	Fire Fighting Foam Unloading
S11	Oily Water Separator Sump Pump Clean-out
S12	No. 2 Dock Oil Water Sump Clean-out
	Possum Point C.T. False Start Drain Tank
S13	No. 2 Dock Oil Water Sump Clean-out
S14	C.T. Portable Restroom
S15	Ash Handling and Storage

LEGEND

- ABOVE GROUND FUEL OIL TRANSFER PIPING
--- DRAINAGE DITCH
● APPROXIMATE LOCATION OF ELECTRICAL TRANSFORMER

NOTES

1. DRAWING REPRODUCED FROM SCANNED DRAWING TITLED "SITE PLAN DIAGRAM, POSSUM POINT POWER STATION, DUMFRIES, VIRGINIA" BY VIRGINIA POWER FOSSIL AND HYDRO ENGINEERING, DRAWING No. PP-0-SP-STA-004, DATED MARCH 10, 2000.

2	REVISED PER ENVIRONMENTAL REDLINE.										
	9/22 2014	—	KTC	RAW	RWM	—	—	—	—	—	
REV	DATE	DSGN	DRWN	CHKD	DSGN SUPLY	LEAD ENGR	CIVIL ENGR	ELEC ENGR	MECH ENGR	ARCH	

4	REVISED PER ENVIRONMENTAL REDLINE TO ADD ASH POND A, B & C & CHANGE SCALE.										
	2/29 2016	—	CWL	IAW	RWM	—	—	—	—	—	
REV	DATE	DSGN	DRWN	CHKD	DSGN SUPV	LEAD ENGR	CIVIL ENGR	ELEC ENGR	MECH ENGR	ARCH	

3	REVISED PER ENVIRONMENTAL REDLINE.										
	9/11 2015	—	CWL	BWP	PRWM	—	—	—	—	—	
EV	DATE	DSGN	DRWN	CHKD	DSGN SUPV	LEAD ENGR	CIVIL ENGR	ELEC ENGR	MECH ENGR	ARCH	


DSGN	---	DSGN	SUPV	RWM
DRWN	KTC	ENGR	SUPV	---
CHKD	BWP	LEAD	ENGR	---
DISPL	RAW	SCALE: 1" = 500'	UNLESS OTHERWISE NOTED	SH 1 OF 1

STORM WATER EXPOSURES

DRAWING NUMBER
PP-0-SP-STA-621

REV.
4

SH 1 OF 1

**DOMINION ENERGY**

FOSSIL & HYDRO TECHNICAL SERVICES
RICHMOND, VIRGINIA

SITE PLAN

STORM WATER EXPOSURES

DRAWING NUMBER
PP-0-SP-STA-621

REV.
4

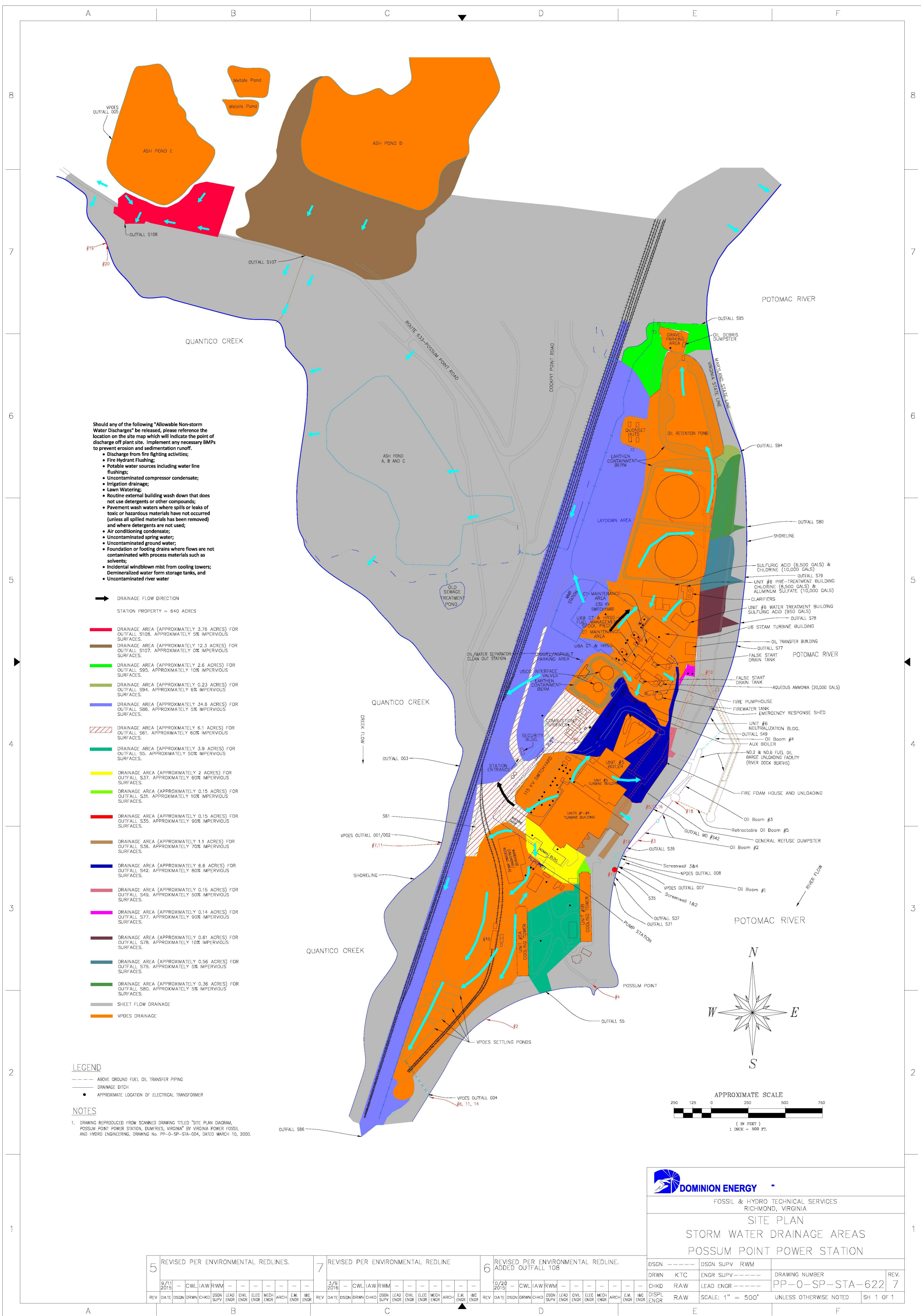
SCALE: 1" = 500'

UNLESS OTHERWISE NOTED

SH 1 OF 1

Appendix C

Storm Water Drainage Areas (SWPPP Permit Reference # 2, 7, 9 & 12)



Appendix D

Annual Compliance Evaluation Summary Report (SWPPP Permit Reference #10, 19 & 20)

STORM WATER POLLUTION PREVENTION PLAN ANNUAL SITE COMPLIANCE EVALUATION

LOCATION: Possum Point Power Station

DATE OF ANNUAL EVALUATION:

EVALUATION METHOD: Comprehensive SWPPP Checklist

EVALUATION TEAM:

SCOPE OF SITE COMPLIANCE EVALUATION:

SUMMARY OF EVALUTION	YES or NO
Answer the following questions with YES or NO	
Were Inspection Made of Each Material Exposed to Storm Water?	
Were Inspection Made of Each Activity / Unloading Area Exposed to Storm Water?	
Were Inspection Made for Contaminants on the Ground?	
Were Inspection Made for Leaks from Equipment or Containers?	
Were Inspection Made for Vehicle Tracking Impacts?	
Were Inspection Made for Materials Blowing from Areas?	
Were Inspection Made of Pollutants in Drainage Ways?	
Were Inspection Made of Monitoring and Inspection Records?	
Were BMPs Identified in the SWPPP Were Checked to See if Used?	
Were the Locations of Outfalls Inspected?	
Were Site Map(s) Reviewed?	

COMPLIANCE EVALUATION SUMMARY REPORT:

EVALUATION OF OUTFALLS:	TOTALS
Storm Water Outfalls:	
Process/Allowable Non-Storm Water Outfalls:	
Compliance Action Item Summary:	YES or NO
Any evidence of Leaks or Spills that may have reached offsite Surface Water?	
Any evidence of exposure sources contacting Storm Water?	
Is Written SWPPP Binder Updates Needed?	
Does the Site Map(s) require revisions?	
Are Additional BMPs needed or requiring maintenance?	
Incidents of Non-Compliance of Permit Discharge Limits?	
Were any issues of Non-compliance found?	
Was any incidents noted that require Notification?	

SWPPP TEXT OBSERVATIONS – Possum Point Power Station SWPPP

Corresponding SWPPP Section	REQUIRED SWPPP CONTENTS:	Revision Required (Yes or No)
Page iv	Management Approval Certification	
Section 1.0	Description of Station & its activities	
Section 2.1	Pollution Prevention Team	
Section 2.2	Spill Response Procedures	
Sections 3.1 & 3.2	Outfall Descriptions	
Section 3.2	Non-Storm Water Evaluation Certification	
Section 3.2	Allowable Discharge Descriptions	
Sections 3.3, 3.4 & 3.5	Monitoring and/or Inspections descriptions	
Sections 4.0	List of Exposed Materials and/or Activities	
Sections 4.2 & 5.0	List of Structural BMPs	
Section 4.5	Construction, Sediment, or Erosion Control discussion	
Section 5.2.1	Storm Water Training and Schedules	
Section 6.0	Non-Structural BMPs - Good Housekeeping:	
Section 6.1	Dust Control Equipment Areas	
Section 6.2	Delivery Vehicle	
Section 6.3	Fuel Oil Unloading Areas	
Section 6.4	Chemical Unloading Areas	
Section 6.5	Miscellaneous Loading / Unloading	
Sections 6.6 & 6.7	Small and Large Storage Tank Areas	
Section 6.8	Spill Reduction Measures	
Section 6.9	Oil Filled Electrical Equipment Areas, e.g., Transformers	
Section 6.10	Residue Hauling Vehicles	
Section 6.11	Ash Handling Areas & Hauling Vehicles	
Section 6.12	Areas Adjacent to Ponds/Basins/Impoundments	
Section 6.13	Landfills, Scrap Yards, Surface Impoundments, Open Dumps, General Refuse	
Section 6.14	Maintenance Activities	
Section 6.15	Material Storage Areas	
Section 7.0	SWPPP Documentation:	
Section 7.1	Reportable Spills	
Section 7.2 & 7.3	Inspections and Monitoring Documentation Locations	
Section 7.4	Annual Evaluation Documentation	
	SWPPP Map Elements – Summary:	
	Updated Outfall Locations & Numbers	
Appendices A, B & C	Topographical Location & Surface Water Body Names	
Appendices A, B & C	Drainage Direction by Site Area	
Appendices A, B & C	Activity Locations Exposed to Storm Water	
Appendices A, B & C	Equipment Locations Exposed to Storm Water	
Appendices A, B & C	Materials Potentially Exposed to Storm Water	
Appendices A, B & C	Spill or Leak Areas - Past or Potential	

**SITE OBSERVATIONS – Possum Point Power Station Site Visit
(Records, Site Conditions, Structural / Non-Structural BMPs)**

NOTE: List any test methods used in evaluating Nonstorm Water Discharges and the results.

A Dry weather evaluation was performed on ?? by ??. The following summarizes the evaluation:

Outfall S5 –
Outfall S31 –
Outfall S36 –
Outfall S37 –
Outfall S42 –
Outfall S49 –
Outfall S61 –
Outfall S77 –
Outfall S78 –
Outfall S79 –
Outfall S80 –
Outfall S86 –
Outfall S94 –
Outfall S95 –
Outfall S107 –

SUMMARY DISCHARGE MONITORING DATA:

Visually Monitoring Reports: The following summarizes the results:

Outfall S5 –
Outfall S42 –
Outfall S61 –
Outfall S95 –

Note, the visual monitoring forms should be signed by only VPDES authorized individuals who have been identified in writing to DEQ.

Inspections Records:

Training Records:

Other Observations:

SWPPP ACTION ITEMS – Possum Point Power Station

ACTION ITEM IMPLEMENTATION SCHEDULE			
Action Item	Responsible Person	Completion Deadline	Actual Date Completed
1.			
2.			
3.			
4.			

CERTIFICATION OF ANNUAL SWPPP EVALUATION

☐ Is this facility is in compliance with the SWPPP and the VPDES permit VA0002071.

Plan Certification Requirement: I have reviewed and approve the revisions that resulted from this annual Comprehensive Site Compliance Evaluation.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signatory

Signature:		Date:
Printed Name:		
Title:		

Appendix E

SWPPP Inspection Report Forms (SWPPP Permit Reference #1, 13)

Ash Pond Closure Stormwater Management Inspection Form

Daily Routine Environmental Inspection Items

General Conditions and Observations	Y	N	N/A
01. Are there road conditions/ grading areas along the three ponds where water is not flowing toward the ponds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02. Is water leaving through the outfalls of Pond D and E?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03. Is the project in compliance with the SPCC Plan (including inspection reports)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04. Is there lack of rock or is there ash build-up within construction entrances to Ponds A, B, C, D and E that are not covered by the SWPPP? If yes, list the corrective actions below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05. Are there areas outside of operation that may be unstabilized and require stabilization?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06. Are all haul roads free of ash that may enter the waterways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07. Are there major erosion issues on the inner or outer sides of Dam road along Pond E that would jeopardize compliance? If yes, list corrective actions below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08. Is there any unauthorized material or flows in the Pond D emergency spillway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09. Have the intended preventive stormwater controls been installed (silt fencing, straw, check dams, etc.) as per the Virginia Erosion and Sediment Control Standard Specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Do the stormwater controls function as intended per the Virginia Erosion and Sediment Control Standard Specifications? If no, list corrective actions below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Are construction vehicles being routinely maintained per the contractor's maintenance schedule?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are any additional stormwater control measures needed that did not exist at the time of the inspection? If yes, list measures below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Has the contractor been informed of corrective actions? If yes, list corrective actions below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ash Handling			
14. Are transportation vehicles being loaded on gravel pads within the Pond areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Is the ash properly dewatered to prevent leakage during hauling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Are all haul roads watered daily (except in wet and freezing conditions) during times of active ash handling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Are vehicles being properly cleaned to remove ash at the loading area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Are the haul and public roads free of ash?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Is the ash being stored properly on the rail cars and/or off-site hauling trucks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Have the intended preventive stormwater controls been installed (silt fencing, straw, check dams, etc.) as per the Virginia Erosion and Sediment Control Standard Specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Do the stormwater controls function as intended per the Virginia Erosion and Sediment Control Standard Specifications? If no, List corrective actions below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Are any additional control measures needed that did not exist at the time of the inspection? If so, list additional measures below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Has the contractor been informed of corrective actions? If yes, list the corrective actions below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments (Document Corrective Actions below, including control measures requiring maintenance)

***All corrective actions must be implemented as soon as possible but no later than 7 days after discovery.**

Name (Printed):	Date:
Signed:	Time:

SPCC Monthly Oil Inspection Form (Page 1 of 7)

Check each item for each tank or area if acceptable; if unacceptable mark space with * and explain in comments section at bottom of form. Date and sign form.		5-HO-TK 1A (South) 21 million gal.		5-HO-TK 1B (North)		00-FO-TK-1 (#2 Oil South) 1,015,000 gal.		00-FO-TK-2 (#2 Oil North) 2 million gal.		CT Backup Gen Diesel Tank 110 gal.	
1	Tank Shell & Roof- Check for:										
a	Drip marks										
b	Discoloration of tanks or flaking										
c	Localized corrosion										
d	Puddles containing oil										
e	Corrosion										
f	Structural Damage										
g	Hairline Cracks										
h	Localized Dead Vegetation										
i	Vegetation obstructing inspection										
j	Oil at Release Prevention Barrier (RPB) or in leak detection system									N/A	
2	Foundation/Supports-Check for:										
a	Cracking or deterioration of support / ringwall									N/A	
b	Discoloration or corrosion										
c	Puddles containing oil										
d	Settlement										
e	Gaps between tank and foundation / support										
f	Damage caused by vegetation roots										
g	Vegetation obstructing inspection										
3	Piping										
a	Droplets of oil										
b	Discoloration										
c	Corrosion										
d	Pipes bowing between supports										
e	Evidence of seepage from valve stems, flanges, seals										
f	Localized dead vegetation near piping										
4	Secondary Containment - Dike or Berm										
a	Standing water (does area need to be drained to maintain capacity?)									N/A	
	If yes, indicate the date the valve is opened and the date the valve is closed:	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed
										N/A	N/A
b	Status of dike drain valve and valve lock (where appropriate)									N/A	
c	Permeability of dike wall & floor (cracks or holes, from rodents, trees, piping, etc.)										
d	Debris outside containment area										
e	Erosion of dike									N/A	
f	Status of pipes, inlets, drainage beneath tanks, etc.										
g	Vegetation obstructing inspection										
5	Secondary Containment-Other										
a	Cracks										
b	Discoloration										
c	Standing water or oil										
d	Corrosion										
e	Valve conditions										

Comments:

SPCC Monthly Oil Inspection Form (Page 2 of 7)

Check each item for each tank or area if acceptable; if unacceptable mark space with * and explain in comments section at bottom of form. Date and sign form.		Unit 5 Lube Oil Room		Unit 4 Lube Oil Room		Unit 1 Lube Oil Room		Unit 6 Drum Oil First Floor Steam Turbine Building		Coal Yard Lube Oil Room	
1	Tank Shell & Roof- Check for:										
a	Drip marks										
b	Discoloration of tanks or flaking										
c	Localized corrosion										
d	Puddles containing oil										
e	Corrosion										
f	Structural Damage										
g	Hairline Cracks										
h	Localized Dead Vegetation	N/A		N/A		N/A		N/A		N/A	
i	Vegetation obstructing inspection	N/A		N/A		N/A		N/A		N/A	
j	Oil at Release Prevention Barrier (RPB) or in leak detection system	N/A		N/A		N/A		N/A		N/A	
2	Foundation/Supports-Check for:										
a	Cracking or deterioration of support / ringwall										
b	Discoloration or corrosion										
c	Puddles containing oil										
d	Settlement										
e	Gaps between tank and foundation / support										
f	Damage caused by vegetation roots	N/A		N/A		N/A		N/A		N/A	
g	Vegetation obstructing inspection	N/A		N/A		N/A		N/A		N/A	
3	Piping										
a	Droplets of oil										
b	Discoloration										
c	Corrosion										
d	Pipes bowing between supports										
e	Evidence of seepage from valve stems, flanges, seals										
f	Localized dead vegetation near piping	N/A		N/A		N/A		N/A		N/A	
4	Secondary Containment - Dike or Berm										
a	Standing water (does area need to be drained to maintain capacity?)	N/A		N/A		N/A		N/A		N/A	
	If yes, indicate the date the valve is opened and the date the valve is closed:	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	Status of dike drain valve and valve lock (where appropriate)										
c	Permeability of dike wall & floor (cracks or holes, from rodents, trees, piping, etc.)										
d	Debris outside containment area										
e	Erosion of dike	N/A		N/A		N/A		N/A		N/A	
f	Status of pipes, inlets, drainage beneath tanks, etc.										
g	Vegetation obstructing inspection	N/A		N/A		N/A		N/A		N/A	
5	Secondary Containment-Other										
a	Cracks										
b	Discoloration										
c	Standing water or oil										
d	Corrosion										
e	Valve conditions										

Comments:

SPCC Monthly Oil Inspection Form (Page 3 of 7)

Check each item for each tank or area if acceptable; if unacceptable mark space with * and explain in comments section at bottom of form. Date and sign form.		Unit 3 Turbine Lube Oil Res. 3150 gal.		Unit 4 Turbine Lube Oil Res. 4750 gal.		Unit 5 Turbine Lube Oil Res. 10,000 gal.		Unit 6 Steam Turbine Lube Oil Res. 4000 gal.		U3 ID Fans A&B Oil. Res. 2 @ 80 gal.	
1	Tank Shell & Roof- Check for:										
a	Drip marks										
b	Discoloration of tanks or flaking										
c	Localized corrosion										
d	Puddles containing oil										
e	Corrosion										
f	Structural Damage										
g	Hairline Cracks										
h	Localized Dead Vegetation	N/A		N/A		N/A		N/A			
i	Vegetation obstructing inspection	N/A		N/A		N/A		N/A			
j	Oil at Release Prevention Barrier (RPB) or in leak detection system	N/A		N/A		N/A		N/A			
2	Foundation/Supports-Check for:										
a	Cracking or deterioration of support / ringwall										
b	Discoloration or corrosion										
c	Puddles containing oil										
d	Settlement										
e	Gaps between tank and foundation / support										
f	Damage caused by vegetation roots	N/A		N/A		N/A		N/A			
g	Vegetation obstructing inspection	N/A		N/A		N/A		N/A			
3	Piping										
a	Droplets of oil										
b	Discoloration										
c	Corrosion										
d	Pipes bowing between supports										
e	Evidence of seepage from valve stems, flanges, seals										
f	Localized dead vegetation near piping	N/A		N/A		N/A		N/A			
4	Secondary Containment - Dike or Berm										
a	Standing water (does area need to be drained to maintain capacity?)	N/A		N/A		N/A		N/A		N/A	
	If yes, indicate the date the valve is opened and the date the valve is closed:	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	Status of dike drain valve and valve lock (where appropriate)										
c	Permeability of dike wall & floor (cracks or holes, from rodents, trees, piping, etc.)										
d	Debris outside containment area										
e	Erosion of dike	N/A		N/A		N/A		N/A		N/A	
f	Status of pipes, inlets, drainage beneath tanks, etc.										
g	Vegetation obstructing inspection	N/A		N/A		N/A		N/A			
5	Secondary Containment-Other										
a	Cracks										
b	Discoloration										
c	Standing water or oil										
d	Corrosion										
e	Valve conditions										

Comments:

SPCC Monthly Oil Inspection Form (Page 4 of 7)

Check each item for each tank or area if acceptable; if unacceptable mark space with * and explain in comments section at bottom of form. Date and sign form.		U4 ID Fans A&B Oil. Res. 2 @ 65 gal.		U5 ID Fans A,B,C&D 4@87 gal.		00-FO-TK-3 Diesel Fire Pump 1000 gal.		00-FO-TK-4 Gasoline (3000 gal.) / Diesel (5000 gal.)		00-FO-TK-5 Kerosene 2000 gal.	
1	Tank Shell & Roof- Check for:										
a	Drip marks										
b	Discoloration of tanks or flaking										
c	Localized corrosion										
d	Puddles containing oil										
e	Corrosion										
f	Structural Damage										
g	Hairline Cracks										
h	Localized Dead Vegetation										
i	Vegetation obstructing inspection										
j	Oil at Release Prevention Barrier (RPB) or in leak detection system					N/A		N/A		N/A	
2	Foundation/Supports-Check for:										
a	Cracking or deterioration of support / ringwall					N/A					
b	Discoloration or corrosion										
c	Puddles containing oil										
d	Settlement										
e	Gaps between tank and foundation / support										
f	Damage caused by vegetation roots							N/A		N/A	
g	Vegetation obstructing inspection										
3	Piping										
a	Droplets of oil										
b	Discoloration										
c	Corrosion										
d	Pipes bowing between supports										
e	Evidence of seepage from valve stems, flanges, seals										
f	Localized dead vegetation near piping							N/A		N/A	
4	Secondary Containment - Dike or Berm										
a	Standing water (does area need to be drained to maintain capacity?)	N/A		N/A		N/A		N/A		N/A	
	If yes, indicate the date the valve is opened and the date the valve is closed:	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b	Status of dike drain valve and valve lock (where appropriate)					N/A		N/A		N/A	
c	Permeability of dike wall & floor (cracks or holes, from rodents, trees, piping, etc.)										
d	Debris outside containment area										
e	Erosion of dike	N/A		N/A		N/A					
f	Status of pipes, inlets, drainage beneath tanks, etc.										
g	Vegetation obstructing inspection										
5	Secondary Containment-Other										
a	Cracks										
b	Discoloration										
c	Standing water or oil										
d	Corrosion										
e	Valve conditions										

Comments:

SPCC Monthly Oil Inspection Form (Page 5 of 7)

Oil Retention Pond Inspection

Check each item for each tank or area if acceptable; if unacceptable mark space with * and explain in comments section at bottom of form. Date and sign form.	Oil Retention Pond								
Retention and Drainage Ponds									
a Erosion									
b Available capacity									
c Presence of oil									
d Debris									
e Stressed vegetation									

Leak Detection

Leak Detection	Sat	Unsat	Comments
False start drain tank Unit 6 A			
False start drain tank Unit 6 B			
Oily Water Separator			

SPCC Montly Oil Inspection (Page 6 of 7)
Misc. Areas

Area	Status (OK: Y/N)	Comments
5-HO-TK-1A Piping		
5-HO-TK-1B Piping		
00-FO-TK-1 Piping		
00-FO-TK-2 Piping		
00-FO-TK-3 Piping		
Dike Penetrations: 1@HO Tanks 3@FO Tanks		
Oil Docks / Piping		
Trash Dumpsters & Metals Dumpster		
Sand & Gravel Stock Piles		
U5 A&B Cooling Towers		
Warehouse Oil Storage Area		
Unit 1 Used Oil Area		
Unit 5 Used Oil Area		
115Kv Yard		

SPCC Montly Oil Inspection (Page 7 of 7)
Misc. Areas Cont'd

Area	Status (OK: Y/N)	Comments
Unit 3 Basement (Misc. Equipment)		
Unit 4 Basement (Misc. Equipment)		
Unit 5 Basement (Misc. Equipment)		
Unit 6 HRSG Boiler Feed Pumps		
Unit 6 Steam Turbine Hydraulic Oil Reservoir		
Unit 6 A/B Lube Oil Accesory Modules		
Mobil Oil Carts (5 Total) Includes U6 Portable Trailer		
U5 Transfer Pump House		
Coal Conveyor Areas (2)		
Oil Retention Pond		

Date: _____

Signature:_____

General Comments:

Possum Point Power Station

Storm Water Quarterly Visual Examination Report

Monitoring Year _____ Outfall # S5

Visual Examinations must be made of samples collected within the first 30 minutes of rain event commencement or discharge. All samples are to be collected from the discharge resulting from a storm event that created a discharge and that occurs at least 72 hours from the previous storm event that cause a discharge. Personnel conducting the examinations should attempt to relate any contamination that is observed in the samples to the sources of pollutants on site. If contamination is observed, the personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant, and if BMPs have already been implemented, evaluating whether or not these are working correctly or need maintenance.

	January – March Monitoring Period	April – June Monitoring Period	July – September Monitoring Period	October – December Monitoring Period
Date/Time				
Number of hours or days from previous storm event which caused a discharge.				
Examiner(s)				
Nature of Discharge				
Visual Quality of Discharge				
Color				
Odor				
Clarity				
Floating Solids				
Settled Solids				
Suspended Solids				
Foam				
Oil Sheen				
Any other obvious indicators of contamination				
Probable source(s) of any observed storm water contamination				
Sampler's Signature				
Certification Signature Read Statement Below				

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Comments: _____

Possum Point Power Station

Storm Water Quarterly Visual Examination Report

Monitoring Year _____ Outfall # S42

Visual Examinations must be made of samples collected within the first 30 minutes of rain event commencement or discharge. All samples are to be collected from the discharge resulting from a storm event that created a discharge and that occurs at least 72 hours from the previous storm event that cause a discharge. Personnel conducting the examinations should attempt to relate any contamination that is observed in the samples to the sources of pollutants on site. If contamination is observed, the personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant, and if BMPs have already been implemented, evaluating whether or not these are working correctly or need maintenance.

	January – March Monitoring Period	April – June Monitoring Period	July – September Monitoring Period	October – December Monitoring Period
Date/Time				
Number of hours or days from previous storm event which caused a discharge.				
Examiner(s)				
Nature of Discharge				
Visual Quality of Discharge				
Color				
Odor				
Clarity				
Floating Solids				
Settled Solids				
Suspended Solids				
Foam				
Oil Sheen				
Any other obvious indicators of contamination				
Probable source(s) of any observed storm water contamination				
Sampler's Signature				
Certification Signature Read Statement Below				

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Comments:	

Possum Point Power Station
Storm Water Quarterly Visual Examination Report
Monitoring Year _____ Outfall # S61

Visual Examinations must be made of samples collected within the first 30 minutes of rain event commencement or discharge. All samples are to be collected from the discharge resulting from a storm event that created a discharge and that occurs at least 72 hours from the previous storm event that cause a discharge. Personnel conducting the examinations should attempt to relate any contamination that is observed in the samples to the sources of pollutants on site. If contamination is observed, the personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant, and if BMPs have already been implemented, evaluating whether or not these are working correctly or need maintenance.

	January – March Monitoring Period	April – June Monitoring Period	July – September Monitoring Period	October – December Monitoring Period
Date/Time				
Number of hours or days from previous storm event which caused a discharge.				
Examiner(s)				
Nature of Discharge				
Visual Quality of Discharge				
Color				
Odor				
Clarity				
Floating Solids				
Settled Solids				
Suspended Solids				
Foam				
Oil Sheen				
Any other obvious indicators of contamination				
Probable source(s) of any observed storm water contamination				
Sampler's Signature				
Certification Signature Read Statement Below				

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Comments:	

Possum Point Power Station

Storm Water Quarterly Visual Examination Report

Monitoring Year _____ Outfall # S95

Visual Examinations must be made of samples collected within the first 30 minutes of rain event commencement or discharge. All samples are to be collected from the discharge resulting from a storm event that created a discharge and that occurs at least 72 hours from the previous storm event that cause a discharge. Personnel conducting the examinations should attempt to relate any contamination that is observed in the samples to the sources of pollutants on site. If contamination is observed, the personnel should evaluate whether or not additional BMPs should be implemented in the pollution prevention plan to address the observed contaminant, and if BMPs have already been implemented, evaluating whether or not these are working correctly or need maintenance.

	January – March Monitoring Period	April – June Monitoring Period	July – September Monitoring Period	October – December Monitoring Period
Date/Time				
Number of hours or days from previous storm event which caused a discharge.				
Examiner(s)				
Nature of Discharge				
Visual Quality of Discharge				
Color				
Odor				
Clarity				
Floating Solids				
Settled Solids				
Suspended Solids				
Foam				
Oil Sheen				
Any other obvious indicators of contamination				
Probable source(s) of any observed storm water contamination				
Sampler's Signature				
Certification Signature Read Statement Below				

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Comments:	

Appendix F

Cooling Tower Mist Study (SWPPP Permit Reference #3)



VIRGINIA ELECTRIC AND POWER COMPANY

Possum Port US COALINE TOWER

P.O. No.
35-1181-210

Cooling Tower Accessories

DATE

PAGE

1

OF

6

Manufacturer

The Marley Company

Type/Model

Cross Flow/6616-4-11 Class 600

Number Cooling Towerssq.

2

Number Cells Per Tower

11

Tag

M-529 A&B

I. Performance Data

* Circ. Water Flow, GPM 330,000

Inlet Water Temp., Deg. F 113

Outlet Water Temp., Deg. F 89

Ambient W.B. Temp., Deg. F 78

Approach, Deg. F 11

Ambient D.B. Temp., Deg. F

Power Input to Fan Motors,

HP Total 22 Motors - 4592

Tower Pumping Head, Ft

(Exclusive of Riser Friction

Losses), Ft. 41.02

* Drift Loss, % .005

Max. Sound Loss, DBA 90

Atmos. Press., HG A 29.92

Wind Velocity, MPH 0 to 10

Total Dissolved Solids, PPM 10,000

Air Flow, LB/HR (LB. Dry

Air Per HR. per Fan) 95,683

Exhaust Wet Bulb Temp.,

Deg. F 101.4

Exhaust Dry Bulb Temp.,

Deg. F 101.4

Evaporation Loss, % 2.150

Total Losses (Drift & Evap),

% 2.155

Heat Removed, BTU/HR. 3960 X 10⁶

Water to Air Ratio 1,3057

Fill Height, Ft. 36

Total Wetted Surf, 22 Cells,

Ft. 3,293,400

Number of Fill Layers 108

$$DRIFT = (.00005) \times (330,000) =$$

* 16.5 gpm

* = WHEN THE UNIT IS RUNNING
AND THE COOLING TOWER IS
IN SERVICE

10/16/06 - JRM

COOLING TOWER SPECIFICATIONS AND EQUIPMENT DATA SHEET

IF ANY DIFFICULTIES OR PROBLEMS OCCUR, CALL:
PSYCHROMETRIC SYSTEMS, INC.

1-303-215-1100

Possum Point U6 Cooling Tower

TOWER MODEL NUMBER
CUSTOMER NAME
CONTRACT NUMBER
PSYCHROMETRIC SYSTEMS JOB NUMBER
LOCATION
COMPLETION DATE

CFF-484838-10B-33
GE INTERNATIONAL
70100818
01-116
POSSUM POINT, VA
3/11/01

PERFORMANCE DATA

* WATER CIRCULATION, US GPM 189463
INLET WATER CIRCULATION TEMPERATURE (°F) 103.56
OUTLET WATER TEMPERATURE (°F) 88.98
DESIGN WET BULB TEMPERATURE (°F) 75.96
ELEVATION (FT) 67 FT

TOWER DESIGN DATA

TYPE BACK TO BACK COUNTERFLOW
NUMBER OF CELLS 10
CELL SIZE (FT x FT) 48 X 48
OVERALL LENGTH/WIDTH (FT x FT) 240 X 96
BASIN CURB TO DISTRIBUTION CENTER LINE (FT) 26'-11"
DISTRIBUTION TYPE LOW PRESSURE DOWN SPRAY
* DRIFT LOSS (% CIRCULATION) 0.005%
DRIFT ELIMINATOR TYPE BRENTWOOD CDX-150
FILL TYPE BRENTWOOD VF19/
BRENTWOOD 1900BR
ACCESS TO TOP OF TOWER 1 FRP STAIR & 1 FRP LADDER
FAN DECK LIVE LOAD (PSF) 60
SNOW LOAD (PSF) 30
DESIGN WIND VELOCITY (MPH) 80

MATERIALS

STRUCTURE
BOLTING HARDWARE
NAILING HARDWARE
BASE ANCHORS
JOINT CONNECTORS
GEAR SUPPORT MEMBERS

FIBERGLASS
316 LSS
316 LSS
316 SS
316 SS
HDG

DRIFT =
 $(0.00005) \times (189463) = 9.47$
gpm

*1 = WHEN THE COOLING TOWER IS IN
SERVICE AND THE UNIT IS
OPERATING

10/17/06 - JRM

ACCU-PAC

ACCU-TAG

SURFACE MEDIA

DRIFT ELIMINATOR PRODUCT SUMMARY

Possum Point U6 COOLING TOWER

Product	Type	Standard Gauges Corr/Wave (Nom. mils)	Price Factor ¹	Span ² (ft)	Pressure Drop @ .075 lb/ft ³			Drift Rate ³ (% w.f.)
					400 fpm	500 fpm	600 fpm	
					(in. wg.)			
CDX-080	Cellular	10/15	1.22	4	0.024	0.037	0.049	0.001
		15/15	1.36	4	"	"	"	"
		10/25	1.47	6	"	"	"	"
		10/35	2.56	8	"	"	"	"
CDX-150	Cellular	15/15	1.00	4	0.021	0.032	0.044	0.002
		15/25	1.19	6	"	"	"	"
		15/35	1.81	8	"	"	"	"
DE-080	Blade	25	1.00	6	0.015	0.021	0.028	0.002
DE-097	Blade	25	1.14	6	0.035	0.052	0.071	0.004
DE-120	Blade	25	0.71	6	0.017	0.024	0.033	0.005

¹Based on 5/1/95 price list with CDX-150 15/15 price factor of 1.00

²Max. span for a two point, simply supported arrangement at a maximum air temperature of 115°F

³Based on the CTI-HBIK test method. These limits are guidelines only. Please contact Brentwood for project specific values.

10/19/06 - JRM

desum apn

 BRENTWOOD
INDUSTRIES, INC.

P.O. Box 605, Reading, PA 19603 610/374-5109
Telefax 610/376-6022

Appendix G

Construction Sediment and Erosion Control

Appendix H

Storm Water Discharge Certification

NON-STORM WATER DISCHARGE ASSESSMENT CERTIFICATION*

POSSUM POINT POWER STATION

Worksheet # 7

Completed by: J.Wallace & K. Roller

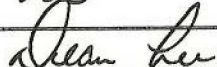
Title: Environmental Compliance

**Coordinator & Senior Environmental
Specialist**

Date: 08/28/96

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the Presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation
7/4-5/96	Outfall 005	Visual Examination	No flows observed in any drop inlets contributing storm water to Outfall 005.		Wallace, Birkhead, Roller
7/4-5/96	Outfall 004	Visual Examination	Flow observed in drop inlets.	Flows contributed by low volume waste sumps.	Wallace, Birkhead, Roller
7/4-5/96	MD# S77	Visual Examination	No flow observed		Wallace, Birkhead, Roller
7/4-5/96	VA# S36	Visual Examination	No flow observed		Wallace, Birkhead, Roller
7/4-5/96	VA# S4	Visual Examination	No flow observed		Wallace, Birkhead, Roller
7/4-5/96	VA# S5	Visual Examination	No flow observed		Wallace, Birkhead, Roller
7/4-5/96	VA# S61	Visual Examination	No flow observed in drop inlets associated with this outfall.		Wallace, Birkhead, Roller
7/4-5/96	MD# S37	Visual Examination	No flow observed in drop inlets associated with this outfall. Actual outfall pipe is submerged.		Wallace, Birkhead, Roller
7/4-5/96	VA# S31	Visual Examination	No flow observed		Wallace, Birkhead, Roller

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the Presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation
7/4-5/96	MD# S42	Visual Examination	Flow observed	Leaking firewater pump.	Wallace, Birckhead, Roller
7/4-5/96	Outfall #117	Visual Examination	Flow observed	This outfall receives the discharge from Outfall 005 plus stream flow from beaver pond.	Wallace, Birckhead, Roller
7/4-5/96	Outfall #107	Visual Examination of drop inlets at base of ash pond dike.	Flow observed	Believed to be ground water from a natural	Wallace, Birckhead, Roller
7/4-5/96	Pipe (19) 001/002	Visual Examination	Flow observed	Unknown	Wallace, Birckhead, Roller

CERTIFICATION	
I, _____ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
A. Name & Official Title (type or print) DEAN hee	B. Area Code and Telephone No. 703-441-3855
C. Signature 	D. Date Signed 9/13/96

* CERTIFICATION OF OUTFALLS THAT CONTAIN STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY.

Appendix I
Spill History
(SWPPP Permit Reference #9 & 12)

Possum Point Reportable Spill History

Map Key	Date	Description and Corrective Action
#1	01/31/2003	Unit 5A Gas Recirc Fan 30 gallons of lube oil to ground, contained and cleaned.
#2	07/17/2003	Old discharge pipe for Outfall 004 ruptured, simultaneous discharge of pond from old and existing locations, plugged next day.
#3	09/24/2003	Old #4 sump discharge pipe, previously plugged, broke because of Hurricane Isabel, release of #4 sump, plugged same day.
#4	10/29/2004	Lost control of Front-end loader at Boat Ramp, submerged engine in Potomac River, release sheen, contained and cleaned.
#5	03/02/2005	Unit 6 Neutralization Pit overflow to storm drain leading to Potomac River.
#6	07/05/2005	Old Combustion Turbine fuel oil supply line rupture on #1 and #2 units; release of 200 gallons between ground and Pond "E" and cleaned, cleaned ground area surrounding each CT.
#7	09/26/2005	Unit 6 Cooling Tower pH excursion for Outfall 202 which discharges into Outfall 001/002.
#8	04/13/2006	Unit 6 Service Water chlorine overfeed, discharge of chlorine above permit limit for Outfall 004.
#9	07/03/2007	Unit 6B Inlet Guide Vane to Combustion Turbine pressurized oil leak to ground, release of 600 gallons to ground, contained and cleaned.
#10	11/12/2008	#6 Oil leak from Units 1&2 return line on Pipe Bench. Line repaired and vacuumed; ~200 gallons to ground.
#11	06/25/2008	Unit 5 Cooling Water discharge to weir, Outfalls 001 & 004; Flood Admin area; Line was repaired.
#12	11/10/2009	Detergent/water discharged to Outfall S36; Portable wash station & Port-a-John were re-located.
#13	07/26/2010	Process water overflow from Unit 6 Neutralization Pit to Outfall S42; equipment repaired.
#14	04/13/2012	Unit 6 Service Water chlorine overfeed, discharge of chlorine above permit limit for Outfall 004.
#15	10/18/2012	Spill to ground of unknown volume of water and diesel.
#16	02/03/2014	Unit 5 Cooling Tower Make-up discharge from freeze-thaw – S42
#17	03/20/2014	Unit 5 Circulating Water Line dewatering activities – S31

Note: The locations of the spills are posted on the Appendix C "SWPPP Drawing" with the **Red #s** that correspond with the #s posted in the above Map Key column.

Appendix J
POTW Authorization Email

H.L. Mooney Wastewater Treatment Plant. Our primary discharge is sanitary wastewater with incidental laboratory discharge. We have approximately 100 employees, not all 100 are on site at one time. Our industrial discharge is covered by a Virginia Department of Environmental Quality Individual Discharge Permit. The laboratory discharge is infrequent and is the result of chemical analyses for boiler/steam quality and water permit compliance.

As discussed the two qualifications which require a specific permit from PWCSA are as follows:

1) Discharge of sanitary wastewater equal to or greater than 25,000 gallons per day

and/or

2) Discharge of industrial/chemical waste in quantities that will impact the H.L. Mooney treatment system.

It is our understanding that Possum Point does not qualify in either of the two conditions, therefore no permit is required.

Please respond back to close the loop in our documentation.

Thanks for you time.

Jeff Marcell
Sr. Environmental Compliance Coordinator
Dominion-Possum Point Power Station
703-441-3813 (phone)
8-795-3813 (tie)
703-441-3897 (fax)

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